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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,355	04/15/2005	Masahiko Kobayakawa	10921.0307USWO	6240

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MINNEAPOLIS, MN 55402-0902

EXAMINER

MITCHELL, JAMES M

ART UNIT	PAPER NUMBER
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2813

MAIL DATE	DELIVERY MODE
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06/01/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/531,355

Applicant(s)

KOBAYAKAWA, MASAHIKO

Examiner

James M. Mitchell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>4/15/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to the application filed April 15, 2005.

Claim Rejections' - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1, 3, 4 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by McLellan et al. (U.S. 6,498,099).

4. McLellan (e.g. Fig. 2A-G) discloses:

(cl. 1) a method of cutting a lead terminal for a package type electronic component which comprises an element such as a semiconductor chip packaged in a molded part made of a synthetic resin with the lead terminal for said element projecting out of the molded part, the method comprising the steps of: indenting a main cutting notch (Fig. 2B) on at least one of obverse and reverse surfaces of the lead terminal in a step before molding the molded part while leaving an unnotched portion between the main notch and each longitudinal side surface of the lead terminal, and then cutting the lead terminal at the main notch (e.g. lead, 100 divided into segments and therefor cut; Fig. 2E) in a step after molding the molded part (401);

(cl. 3) wherein the lead terminal extends outwardly along a bottom surface of the molded part, the one surface of the lead terminal on which the main notch or the combination of the main notch and the sub-notch is provided is located on the side of

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the bottom surface of the molded part. (Fig. 2D);

(cl. 4) a step of implementing a metal plating treatment (Fig. 2C) with respect to the lead terminal at least between the step of indenting the main notch and the step of cutting the lead terminal (Fig. 2D)

(cl. 7) wherein the metal plating treatment includes plating with nickel as an underlayer and plating with a metal having good solderability over the underlayer (Ni/Pd; Fig. 2C).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2, 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over McLellan et al. (U.S. 6,498,099).

7. McLellan discloses the elements stated in paragraph 4 of this office action, but does not appear to disclose indenting a cutting sub-notch at the unnotched portion in a step after molding the molded part, and then cutting the lead terminal at the main notch and the sub-notch.

8. However, applicant has not disclosed that the particular order produces unexpected results or is otherwise critical. As such, the claimed order would have been obvious to one of ordinary skill in the art, since it has been held that selection of any order of performing process steps is prima facie obvious in the absence of new or unexpected result. In re Burhans, 154 F.2d 690, 69 USPQ 330 (CCPA 1946. See e.g.

Ex parte Rubin 128 USPQ (PO BdPatApp 1959); Interactive Gift Express, Inc. v. CompuServe, Inc. 256 F.3d 1323 59 USPQ2d 1401 (Fed. Cir. 2000). See also M.P.E.P 2144.04.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art discloses packaged devices with notches and subnotches on leads. Most notably, Chuang (U.S. 6,483,178) shows its notch and subnotch formed in the same hole.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James M. Mitchell whose telephone number is (571) 272-1931. The examiner can normally be reached on M-F 8:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Whitehead Jr. can be reached on (571) 272-1702. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Ex...Mitchell, J.D.
May 28, 2007